

12. A high voltage cable according to claim 7;
wherein the receptacle is provided in at least one of a high-
voltage power supply and an X-ray tube housing of an X-ray
fluorescence analysis apparatus.

ADDITIONAL FEES:

No additional fees are believed required; however,
should it be determined that a fee is due, authorization is
hereby given to charge any such fee to our Deposit Account No.
01-0268.

REMARKS

To place this application in condition for a
complete action on the merits, the specification has been
suitably revised to correct informalities and improve the
wording. Claim 1 has been amended in formal respects to
improve the wording and place it in better conformance with
U.S. practice. New claims 2-12 have been added to provide a
fuller and more comprehensive scope of coverage.

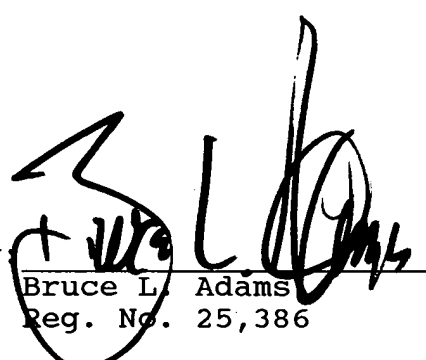
Attached hereto is a marked-up version of the
changes made to the specification and claims by the current
amendment. The attached pages are captioned "**VERSION WITH
MARKINGS TO SHOWN CHANGES MADE.**"

Early and favorable action are respectfully
requested.

Respectfully submitted,
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Bruce L. Adams

Attorney Name

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NOVEMBER 26, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

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IN THE SPECIFICATION:

Paragraph beginning at line 2 of page 1 has been amended as follows:

The present invention relates to an X-ray fluorescence analysis apparatus for carrying out non-destructive elementary analysis, and more particularly relates to an X-ray fluorescence analysis apparatus divided [up] into measuring unit for housing [and] an X-ray tube and a power supply unit for housing a high-voltage power supply.

Paragraph beginning at line 8 of page 1 has been amended as follows:

An X-ray fluorescence analysis apparatus [where] in which a measuring unit housing an X-ray tube and a power supply unit housing a high-voltage power supply are separate [are] is well known in the related art. In particular, [with] in a portable X-ray fluorescence analysis apparatus, the housings of the apparatus are separated to make the size and weight of each individual unit smaller and therefore easier to carry. Further, on the other hand, [with] in an X-ray fluorescence analysis apparatus with an opening on the outer side of the apparatus from which X-rays are radiated, it is

preferable in particular for a measuring unit housing to be small and lightweight in order to facilitate movement and positioning of [move] a measuring unit housing containing a tube [and position this housing] at a region of a material [it is desired] to be [measure] measured.

Paragraph beginning at line 6 of page 2 has been amended as follows:

However, [with] in an apparatus of this configuration, the high-voltage connector is [taken outside] exposed during transportation and movement of the apparatus [moving]. However, a load is accumulated between the high-voltage cables even if no high-voltage is applied to the high-voltage power supply, due to contact between conductors within the high-voltage cable at this time, i.e., the high-voltage cable may apply a high-voltage of, for example, 50,000V to the core at this time[, namely,]. Thus, the material and thickness etc. of the insulator covering the core must be devised in such a manner so that the insulation is not damaged by the application of a high-voltage, i.e. the insulating resistance is extremely large. As a result, when the high-voltage cable is, for example, rubbed, in an open state, according to capacitor theory charge is accumulated but cannot easily be discharged because of the height of the insulation resistance.

Paragraph beginning at line 23 of page 3 has been amended as follows:

Here, the X-ray tube and high-voltage power supply are connected by a high-voltage cable but with the aforementioned portable or open-type apparatus, the housing containing the X-ray tube is made as small and lightweight as possible in order to be located close to the subject to be measured and the heavy high-voltage power supply is provided as a separate housing, with [it being wished to make] the intervening high-voltage cable being made long. However, having a long high-voltage cable in a continually connected state is detrimental to handling and also troublesome with respect to transportation [and] thus, structures where the high-voltage cable is detachable at one or more locations using a high-voltage connector are common.

Paragraph beginning at line 12 of page 4 has been amended as follows:

[A] The structure [for an example] of a high-voltage conenctor used in this kind of application is shown in FIG. 2.

Paragraph beginning at line 14 of page 4 has been amended as follows:

A core 21 is a wire for applying a high-voltage of, for example, 50,000V, and cladding is provided by an insulator

22 so that [this] the high-voltage is not discharged [to outside of] by the cable. Shielding wiring 23 is provided on the outside of the insulator 22 and is electrically connected to a metal fixing screw 24. Protective cladding is provided on the outside of the shielding wiring 23.

Paragraph beginning at line 1 of page 5 has been amended as follows:

In the present invention, a portion of the plug 25 is covered by a pipe-shaped sheath when the plug is disconnected form the receptacle. Threading corresponding to the fixing screw 24 is cut in one end of the sheath so that fixing of the sheath to the high-voltage connector is possible without using any other means.

Paragraph beginning at line 18 of page 5 has been amended as follows:

With the above mechanism, when the sheath covers and is screwed into the high-voltage connector, there is conduction between the shield and core of the high-voltage cable. Therefore, even [is] if a charge is generated due to friction etc., this flows away immediately so that there is no build-up of charge and no electric shock incurred when the core is touched.

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Amended) An X-ray fluorescence analysis apparatus comprising:

a first housing for housing an X-ray tube for irradiating a sample to be measured with primary X-rays;

a second housing for housing a high-voltage power supply for supplying a high-voltage to the X-ray tube; and

a high-voltage cable for connecting the X-ray tube and the high-voltage power supply and having a high-voltage connector [, wherein] at least at one end thereof [of the high-voltage cable is a high-voltage connector], the high-voltage connector comprising [is constituted by] a core, an insulator covering the core, [and] a fixing screw for connecting the high-voltage cable to a receptacle provided on one of the housings, [, there is provided] a detachable [pipe-shaped] sheath for removably [,] covering an exposed portion of the [a] core, the sheath [of the high-voltage connector and covering the core,] having a thread [threading] corresponding to a thread of the fixing screw for enabling fixing of the sheath to the fixing screw, and [the sheath has] a conductor formed at an inner surface of the sheath [thereof] so that the core [of the high-voltage connected] makes contact therewith when the sheath is fixed [fixing] to the fixing screw. 3

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